

AMENDMENTS TO THE CLAIMS:

Please amend the claim 87 as follows.

1 – 86. (Cancelled)

87. (Currently Amended) A method comprising:

assigning ~~one or more~~ a plurality of segment IDs to ~~one or more~~ a plurality of channels associated with ~~one or more~~ a plurality of digitized segments of data;

determining a boundary number that represents ~~the number~~ a number of segment IDs to be aggregated into a first section and ~~the number~~ a number of corresponding digitized segments of data to be aggregated into a second section;

aggregating the determined boundary number of segment IDs into the first section, wherein the segment IDs share a destination node; and

aggregating the determined boundary number of digitized segments of data into the second section, wherein each aggregated digitized segment of data in the second section is associated with a segment ID in the first section.

88. (Previously Presented) The method of claim 87, wherein aggregating the determined boundary number of segment IDs into the first section comprises adding an inactive ID if the number of segment IDs that share a destination node are less than the boundary number.

89. (Previously Presented) The method of claim 87, wherein the boundary number is four.

90. (Previously Presented) The method of claim 87, further comprising combining the first section and the second section into a packet segment.

91. (Previously Presented) The method of claim 90, further comprising prepending a local area network (LAN) header to the packet segment to create a multi-channel packet; and transmitting the multi-channel packet over a local area network (LAN).

92. (Previously Presented) The method of claim 91, wherein the LAN is an Ethernet, and the LAN header is a media access control (MAC) header.

93. (Previously Presented) The method of claim 87, where one or more of the channels are fax channels, and one or more of the digitized segments of data represent fax data.

94. (Previously Presented) The method of claim 87, where one or more of the channels are voice channels, and one or more of the digitized segments of data represent voice data.

95. (Previously Presented) The method of claim 94, wherein one or more of the digitized segments of voice data include at least one sample of pulse-code modulated (PCM) voice data.

96. (Previously Presented) The method of claim 87, wherein one or more of the digitized segments of data are obtained from a time-division multiplexed (TDM) stream of data.

97. (Previously Presented) The method of claim 87, wherein one or more of the digitized segments of data are obtained from an asynchronous transfer multiplexed (ATM) stream of data.

98. (Previously Presented) The method of claim 87, wherein one or more of the digitized segments of data are obtained from a payload of an input packet.

99. (Previously Presented) The method of claim 98, wherein the input packet is an Real Time Protocol (RTP) packet.

100. (New) An apparatus for arranging digitized segments of data comprising:
a data segment receiver to receive a plurality of data segments each having a digitized segment of voice data;
a voice channel identifier to determine which of a plurality of voice channels is associated with each of the received data segments and to generate an associated segment ID for each data segment; and
a data segment aggregator to aggregate a determined boundary number of segment IDs into a first section and to aggregate the determined boundary number of digitized segments of data into a second section.

101. (New) The apparatus of claim 100, further comprising:
a multi-channel voice packet generator to combine the first section and the second section into a packet segment and to prepend a local area network (LAN) header to the packet segment to create a multi-channel voice packet; and

a packet transmitter to transmit the multi-channel voice packet over a LAN.

102. (New) The apparatus of claim 100, wherein the determined boundary number is four.

103. (New) The apparatus of claim 100, wherein the segment IDs are each 2 bytes in length.

104. (New) An article of manufacture comprising:

a machine accessible medium including content that when accessed by a machine causes the machine to perform operations comprising:

assigning a plurality of segment IDs to a plurality of channels associated with a plurality of digitized segments of data;

determining a boundary number that represents a number of segment IDs to be aggregated into a first section and a number of corresponding digitized segments of data to be aggregated into a second section;

aggregating the determined boundary number of segment IDs into the first section, wherein the segment IDs share a destination node; and

aggregating the determined boundary number of digitized segments of data into the second section, wherein each aggregated digitized segment of data in the second section is associated with a segment ID in the first section.

105. (New) The article of manufacture of claim 104, wherein the boundary number is four.

106. (New) The article of manufacture of claim 104, wherein the machine-accessible medium further includes content that causes the machine to perform operations comprising combining the

first section and the second section into a packet segment, prepending a local area network (LAN) header to the packet segment to create a multi-channel packet, and transmitting the multi-channel packet over a local area network (LAN).